

STDs in Men Who Have Sex with Men

Public Health Impact

Data from syphilis surveillance, the Gonococcal Isolate Surveillance Project (GISP), and several U.S. cities indicate that since 1993, an increasing number of MSM are acquiring STDs.¹⁻⁵ Increases in STDs among MSM are consistent with behavioral data suggesting that an increasing number of MSM are participating in sexual behavior that places them at risk for STDs and HIV infection.⁶ Several factors may have contributed to this change, including the availability of highly active antiretroviral therapy (HAART).⁷ Because STDs and the behaviors associated with them increase the likelihood of acquiring and transmitting HIV infection,⁸ the rise in STDs among MSM may signal an increase in HIV incidence among MSM.

Observations

- National notifiable STD surveillance data reported to CDC does not include information regarding sexual behaviors, and, therefore, overall STD trends among MSM in the U.S. are not available. Data from special projects and analyses are presented to provide information regarding STDs among MSM.

Monitoring Trends in Prevalence of STDs, Tuberculosis, and HIV Risk Behaviors Among Men Who Have Sex with Men (MSM Prevalence Monitoring Project)

- In 2002, eight U.S. cities (Chicago, Denver, the District of Columbia, Houston, Long Beach, Philadelphia, San Francisco, and Seattle) participating in the MSM Prevalence Monitoring Project submitted syphilis, gonorrhea, chlamydia, and HIV test data to CDC based on 16,336 visits by MSM to STD clinics. The MSM Prevalence Monitoring Project includes data collected during routine care and reflects testing practices at participating clinics. Medians and city-specific ranges were calculated for the proportion of tests done and STD and HIV test positivity.
- Median positivity among MSM for syphilis nontreponemal serologic testing was 8.0% (range 3.6-12.1%) (Figure AA).
- Median positivity among MSM for gonorrhea overall was 17.1% (range 11.4-23.0%). Median positivity among MSM for urethral gonorrhea was 13.5% (range 8.3-36.1%); median positivity for rectal gonorrhea was 5.7% (range 4.6-10.0%), and median positivity for pharyngeal gonorrhea was 4.2% (range 0.6-10.4%) (Figure BB).
- Median positivity for urethral chlamydia among MSM was 7.2% (range 4.7-11.9%).
- STD and HIV positivity varied by race and ethnicity, but tended to be highest among African-American MSM. Median positivity for HIV, excluding persons previously known to be HIV-positive, was 7.4% (range 1.0-17.0%) for

African-Americans, 3.9% (range 2.2-6.7%) for Hispanics; and 2.4% (range 2.0-3.7%) for whites (Figure CC).

- Median positivity for gonorrhea was higher among MSM who were HIV-positive compared with MSM who were HIV-negative or of unknown HIV status. Median positivity for urethral gonorrhea was 21.0% for men who were HIV-positive and 12.5% for men who were HIV-negative or of unknown HIV status. For rectal gonorrhea, positivity was 10.3% and 5.5%, respectively, and for pharyngeal gonorrhea, 7.7% and 3.9%, respectively. Median positivity for urethral chlamydia was 7.7% among HIV-positive MSM and 6.7% among MSM who were HIV-negative or of unknown HIV status (Figure DD).
- Seventy-eight percent (range 63-89%) of MSM attending these STD clinics had a nontreponemal serologic test for syphilis (STS) performed, 73% (range 19-95%) were tested for urethral gonorrhea, 33% (range 1-61%) were tested for rectal gonorrhea, and 59% (range 2-83%) were tested for pharyngeal gonorrhea. Among MSM not previously HIV-positive, 60% (range 1-69%) were tested for HIV.
- Median HIV prevalence among MSM, including persons known to be HIV-positive, was 18.6% for African-Americans (range 9.9-26.7%), 10.6% (range 8.7-18.2%) for Hispanics, and 9.9% (range 7.3-13.4%) for whites.

Nationally Reported Syphilis Surveillance Data

- Primary and secondary (P&S) syphilis increased in the U.S. in 2002, and this increase occurred only among men. Syphilis male-to-female rate ratios, which may reflect trends among MSM, have been increasing in the U.S. during recent years (Figure 29). The increase in these ratios has been particularly marked in cities with outbreaks of syphilis among MSM.
- In 2002, the rate of P&S syphilis among men (3.8 cases per 100,000 males) was over three times greater than the rate among women (1.1 cases per 100,000 females) (Tables 28 and 29). The overall male-to-female rate ratio has risen steadily since 1996 when it was 1.2. During 2001 to 2002, an increase in the male-to-female rate ratio occurred among whites, African-Americans, and Hispanics; the male-to-female rate ratio did not change among American Indian/Alaska Natives, and it declined among Asian/Pacific Islanders. Additional information on syphilis can be found in the **Syphilis** section.

Gonococcal Isolate Surveillance Project (GISP)

- The Gonococcal Isolate Surveillance Project (GISP), a collaborative project among selected sexually transmitted disease clinics, was established in 1986 to monitor trends in antimicrobial susceptibilities of strains of *N. gonorrhoeae* in the U.S.
- GISP also reports the percentage of *Neisseria gonorrhoeae* isolates obtained from MSM.⁹ Overall, the proportion of isolates coming from MSM increased from 4% in 1988 to 21% in 2002 in GISP clinics, with most of the increase occurring after 1993 (Figure EE). The number of GISP clinics having greater than 5% of GISP isolates from MSM rose from 7 clinics in 1990 to 17 clinics in 2002. Among the 17

GISP clinics with greater than 5% of isolates coming from MSM in 2002, the percentage of patients who were MSM ranged from 7% to 75%, with a median of 20% (Figure FF). Additional information on GISP may be found in the **Gonorrhea** section.

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- ¹ Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men—King County, Washington, 1997-1999. *MMWR* 1999;48:773-7.
 - ² Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men—Southern California, 2000. *MMWR* 2001;50:117-20.
 - ³ Centers for Disease Control and Prevention. Gonorrhea among men who have sex with men—selected sexually transmitted disease clinics, 1993-1996. *MMWR* 1997;46:889-92.
 - ⁴ Fox KK, del Rio C, Holmes K, et. al. Gonorrhea in the HIV era: A reversal in trends among men who have sex with men. *Am J Public Health* 2001;91:959-964.
 - ⁵ Centers for Disease Control and Prevention. Primary and secondary syphilis among men who have sex with men—New York City, 2001. *MMWR* 2002;51:853-6.
 - ⁶ Stall R, Hays R, Waldo C, Ekstrand M, McFarland W. The gay '90s: a review of research in the 1990s on sexual behavior and HIV risk among men who have sex with men. *AIDS* 2000;14:S1-S14.
 - ⁷ Scheer S, Chu PL, Klausner JD, Katz MH, Schwarcz SK. Effect of highly active antiretroviral therapy on diagnoses of sexually transmitted diseases in people with AIDS. *Lancet* 2001;357:432-5.
 - ⁸ Fleming DT, Wasserheit JN. From epidemiologic synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect* 1999;75:3-17.
 - ⁹ Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2002 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report 2002*. Atlanta, GA: U.S. Department of Health and Human Services (in press).

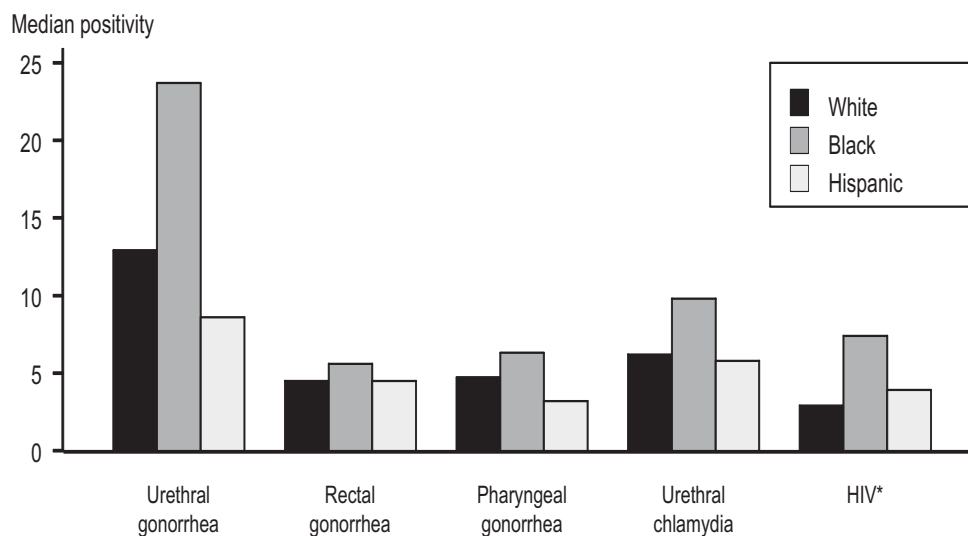
Figure AA. MSM Prevalence Monitoring Project — Syphilis serologic reactivity among men who have sex with men, STD clinics, 2002



Figure BB. MSM Prevalence Monitoring Project — Gonorrhea positivity among men who have sex with men, STD clinics, 2002



Figure CC. MSM Prevalence Monitoring Project — Median clinic test positivity for gonorrhea, chlamydia, and HIV among men who have sex with men by race/ethnicity in participating STD clinics, 2002



*Excludes persons previously known to be HIV-positive.

Figure DD. MSM Prevalence Monitoring Project — Median clinic test positivity for gonorrhea and chlamydia among men who have sex with men by HIV status in participating STD clinics, 2002

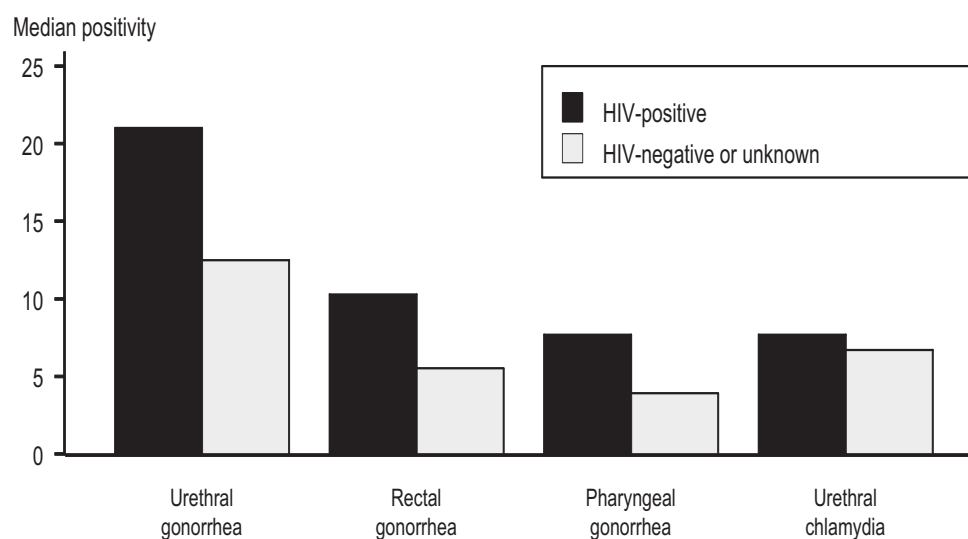


Figure EE. Gonococcal Isolate Surveillance Project (GISP) — Percent of gonorrhea cases that occurred among MSM, 1988-2002

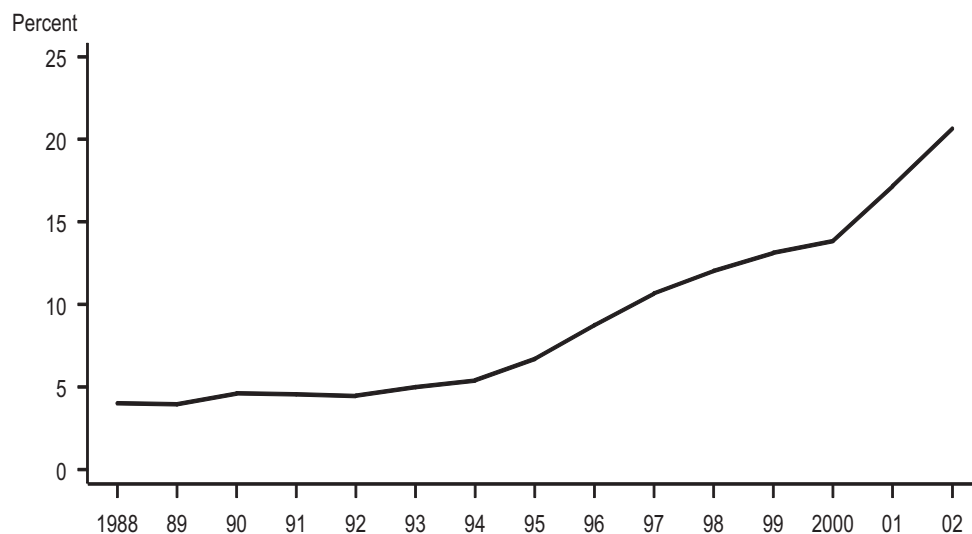
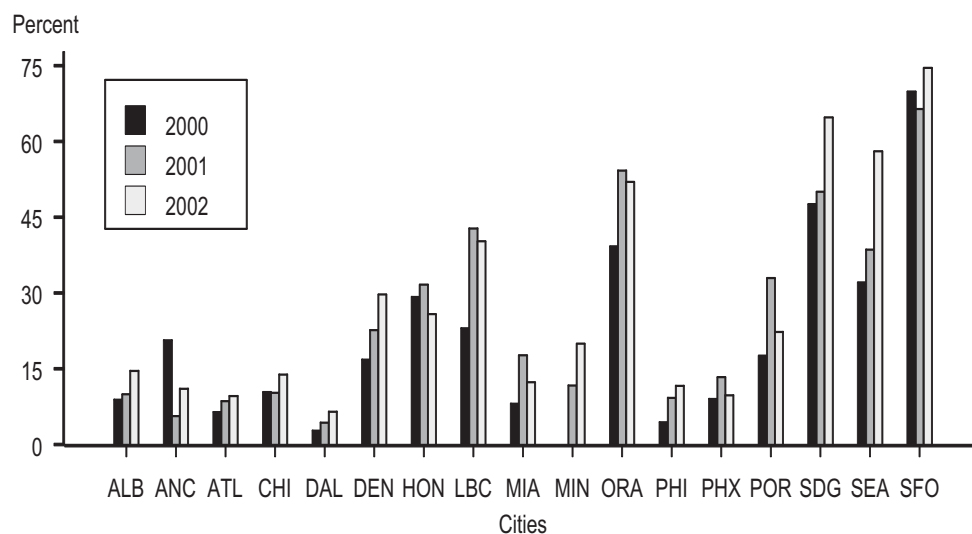


Figure FF. Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* isolates obtained from MSM attending STD clinics in 17 cities, 2000, 2001, and 2002



Note: In 2002, these 17 clinics reported 96.2% (1,028/1,069) of GISP gonorrhea cases among men who have sex with men (MSM). Clinics include: ALB=Albuquerque, NM; ANC=Anchorage, AK; ATL=Atlanta, GA; CHI=Chicago, IL; DAL=Dallas, TX; DEN=Denver, CO; HON=Honolulu, HI; LBC=Long Beach, CA; MIA=Miami, FL; MIN=Minneapolis, MN; ORA=Orange County, CA; PHI=Philadelphia, PA; PHX=Phoenix, AZ; POR=Portland, OR; SDG=San Diego, CA; SEA=Seattle, WA; and SFO=San Francisco, CA.